

Company Watson Petroleum, Inc. Lease & Well No. Heuszel #2
Elevation Unknown Formation Stalnaker Effective Pay -- Ft. Ticket No. 2210
Date 4/30/79 Sec. 17 Twp. 35S Range 9E County Sumner State Kansas
Test Approved by L. A. Watson Western Representative W. K. Hager
Formation Test No. 1 Interval Tested from 2299' ft. to 2310 ft. Total Depth 2310 ft.
Packer Depth 2294 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 2299 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set --
Top Recorder Depth (Inside) 2302 ft. Recorder Number 1558 Cap. 4200
Bottom Recorder Depth (Outside) 2305 ft. Recorder Number 1559 Cap. 4200
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor D.N.B. #3 Drill Collar Length - I. D. - in.
Mud Type chemical Viscosity 38 Weight Pipe Length 600 I. D. 2 1/4 in.
Weight 9.2 Water Loss 16.4 cc. Drill Pipe Length 1679 I. D. 3.8 in.
Chlorides 6,300 P.P.M. Test Tool Length 31' Tool Size 5 1/2 in.
Jars: Make -- Serial Number -- Anchor Length 11' ft. Size 5 1/2 in.
Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Weak blow increasing to strong on initial flow period/weak blow increasing to strong on final flow period.

Recovered 355 ft. of gas in pipe
Recovered 25 ft. of heavy oil and gas cut mud
Recovered 30 ft. of oil and gas cut mud
Recovered 60 ft. of oil cut salt water

Recovered ft. of
Remarks: Salt water 55,000 parts per million chlorides

Time Set Packer(s) 8:30 A.M. Time Started Off Bottom 10:30 A.M. Maximum Temperature 106
Initial Hydrostatic Pressure 1163 P.S.I.
Initial Flow Period 30 Minutes (B) 76 P.S.I. to (C) 53 P.S.I.
Initial Closed In Period 30 Minutes (D) 631 P.S.I.
Final Flow Period 30 Minutes (E) 95 P.S.I. to (F) 84 P.S.I.
Final Closed In Period 30 Minutes (G) 621 P.S.I.
Final Hydrostatic Pressure 1142 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

Date 4/30/79 Test Ticket No. 2210
 Recorder No. 1558 Capacity 4200 Location 2302 Ft.
 Clock No. -- Elevation -- Well Temperature 106 °F

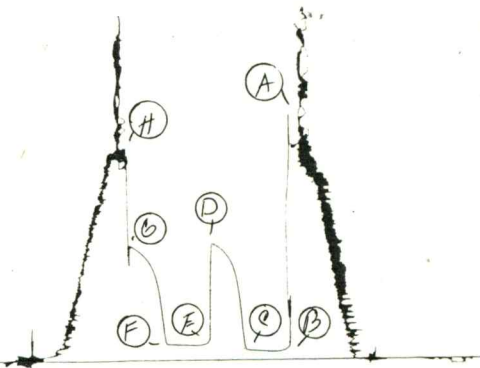
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1163 P.S.I.	Open Tool	8:30P	M
B First Initial Flow Pressure	76 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	53 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	631 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	95 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	84 P.S.I.			
G Final Closed-in Pressure	621 P.S.I.			
H Final Hydrostatic Mud	1142 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>76</u>	<u>0</u>	<u>53</u>	<u>0</u>	<u>95</u>	<u>0</u>	<u>84</u>
P 2 <u>5</u>	<u>51</u>	<u>3</u>	<u>143</u>	<u>5</u>	<u>82</u>	<u>3</u>	<u>175</u>
P 3 <u>10</u>	<u>44</u>	<u>6</u>	<u>367</u>	<u>10</u>	<u>78</u>	<u>6</u>	<u>344</u>
P 4 <u>15</u>	<u>45</u>	<u>9</u>	<u>479</u>	<u>15</u>	<u>80</u>	<u>9</u>	<u>451</u>
P 5 <u>20</u>	<u>48</u>	<u>12</u>	<u>535</u>	<u>20</u>	<u>82</u>	<u>12</u>	<u>517</u>
P 6 <u>25</u>	<u>51</u>	<u>15</u>	<u>577</u>	<u>25</u>	<u>83</u>	<u>15</u>	<u>550</u>
P 7 <u>30</u>	<u>53</u>	<u>18</u>	<u>594</u>	<u>30</u>	<u>84</u>	<u>18</u>	<u>564</u>
P 8		<u>21</u>	<u>612</u>			<u>21</u>	<u>578</u>
P 9		<u>24</u>	<u>619</u>			<u>24</u>	<u>593</u>
P10		<u>27</u>	<u>625</u>			<u>27</u>	<u>607</u>
P11		<u>30</u>	<u>631</u>			<u>30</u>	<u>621</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

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TKC# 2210
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Company Watson Petroleum, inc. Lease & Well No. Heuszel #2
Elevation -- Formation Layton Effective Pay -- Ft. Ticket No. 2585
Date 5/1 /79 Sec. 17 Twp. 35S Range 1E County Sumner State Kansas
Test Approved by L. A. Watson Western Representative Norman Allen
Formation Test No. 2 Interval Tested from 2668' ft. to 2678' ft. Total Depth 2678' ft.
Packer Depth 2663 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 2668 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set --
Top Recorder Depth (Inside) 2671 ft. Recorder Number 1564 Cap. 3150
Bottom Recorder Depth (Outside) 2674 ft. Recorder Number 1562 Cap. 3150
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor D. N. B. Drilling, Inc. Drill Collar Length - I. D. - in.
Mud Type chemical Viscosity 40 Weight Pipe Length 600 I. D. 2.7 in.
Weight 9.4 Water Loss 12.8 cc. Drill Pipe Length 2048 I. D. 3.8 in.
Chlorides 6,100 P.P.M. Test Tool Length 30' ~~in.~~ Tool Size 4 1/2 OD in.
Jars: Make -- Serial Number -- Anchor Length 10' ft. Size 4 1/2 OD in.
Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Fair throughout test.

Recovered 850 ft. of gas in pipe
Recovered 50 ft. of very slightly oil and gas cut mud
Recovered ft. of
Recovered ft. of
Recovered ft. of

Remarks:

Time Set Packer(s) 11:45 ~~A.M.~~ P.M. Time Started Off Bottom 1:45 ~~A.M.~~ ~~P.M.~~ Maximum Temperature 110
Initial Hydrostatic Pressure 1370 P.S.I. (A)
Initial Flow Period 30 Minutes (B) 23 P.S.I. to (C) 37 P.S.I.
Initial Closed In Period 30 Minutes (D) 730 P.S.I.
Final Flow Period 30 Minutes (E) 39 P.S.I. to (F) 34 P.S.I.
Final Closed In Period 30 Minutes (G) 486 P.S.I.
Final Hydrostatic Pressure 1325 P.S.I. (H)

WESTERN TESTING CO., INC.

Pressure Data

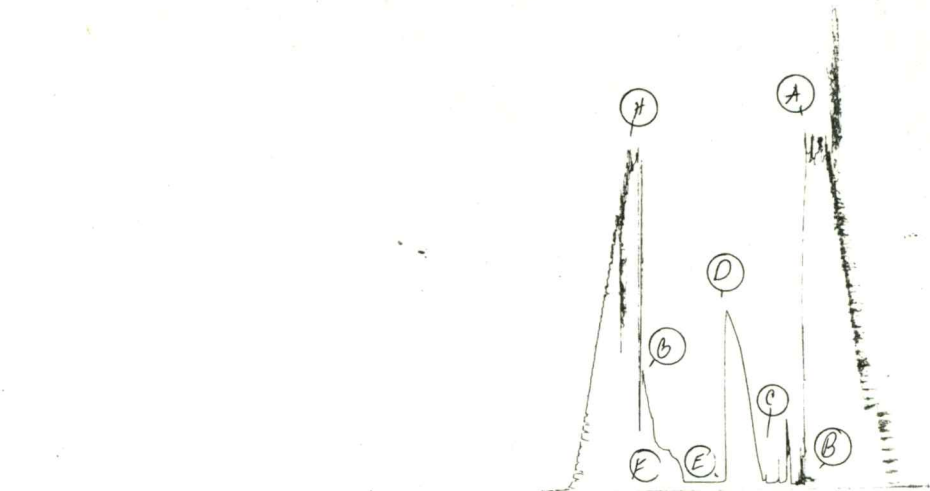
Date 5/1/79 Test Ticket No. 2585
 Recorder No. 1564 Capacity 3150 Location 2671 Ft.
 Clock No. -- Elevation --- Well Temperature 110 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1370 P.S.I.	Open Tool	11:45P	M
B First Initial Flow Pressure	23 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	37 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	730 P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E Second Initial Flow Pressure	39 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	34 P.S.I.			
G Final Closed-in Pressure	486 P.S.I.			
H Final Hydrostatic Mud	1325 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>23</u>	<u>0</u>	<u>37</u>	<u>0</u>	<u>39</u>	<u>0</u>	<u>34</u>
P 2 <u>5</u>	Plugging action	<u>3</u>	<u>99</u>	<u>5</u>	<u>34</u>	<u>3</u>	<u>98</u>
P 3 <u>10</u>	Plugging action	<u>6</u>	<u>186</u>	<u>10</u>	<u>34</u>	<u>6</u>	<u>129</u>
P 4 <u>15</u>	Plugging action	<u>9</u>	<u>308</u>	<u>15</u>	<u>34</u>	<u>9</u>	<u>143</u>
P 5 <u>20</u>	Plugging action	<u>12</u>	<u>430</u>	<u>20</u>	<u>34</u>	<u>12</u>	<u>168</u>
P 6 <u>25</u>	Plugging action	<u>15</u>	<u>530</u>	<u>25</u>	<u>34</u>	<u>15</u>	<u>168</u>
P 7 <u>30</u>	<u>37</u>	<u>18</u>	<u>601</u>	<u>30</u>	<u>34</u>	<u>18</u>	<u>176</u>
P 8		<u>21</u>	<u>654</u>			<u>21</u>	<u>199</u>
P 9		<u>24</u>	<u>692</u>			<u>24</u>	<u>300</u>
P10		<u>27</u>	<u>713</u>			<u>27</u>	<u>393</u>
P11		<u>30</u>	<u>730</u>			<u>30</u>	<u>486</u>
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

IKt # 2585
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Company Watson Petroleum, Inc. Lease & Well No. Heuszel #2
Elevation -- Formation Mississippi Effective Pay -- Ft. Ticket No. 2215
Date 5/5/79 Sec. 17 Twp. 35S Range 1E County Sumner State Kansas
Test Approved by L. A. Watson Western Representative W. K. Hager
Formation Test No. 3 Interval Tested from 3242' ft. to 3259' ft. Total Depth 3577' ft.
Packer Depth 3242 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 3259 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 3248 ft. Recorder Number 1558 Cap. 4200
Bottom Recorder Depth (Outside) -- ft. Recorder Number -- Cap. --
Below Straddle Recorder Depth 3570 ft. Recorder Number 1559 Cap. 4200
Drilling Contractor DNB #3 Drill Collar Length - I. D. - in.
Mud Type - Viscosity - Weight Pipe Length - I. D. 2 1/4 in.
Weight - Water Loss - cc. Drill Pipe Length - I. D. 3.8 in.
Chlorides - P.P.M. Test Tool Length 35' in. Tool Size 5 1/2 in.
Jars: Make -- Serial Number -- Anchor Length 17' ft. Size 5 1/2 in.
Did Well Flow? - Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

See remarks.

Blow: -

Recovered 360 ft. of drilling mud

Recovered - ft. of -

Recovered - ft. of - MISRUN

Recovered - ft. of -

Recovered - ft. of -

Remarks: PACKER SEAT FAILURE. OUT OF HOLE TO ADD ANOTHER PACKER.

Time Set Packer(s) 11:35 A.M. Time Started Off Bottom 11:45 A.M. Maximum Temperature -

Initial Hydrostatic Pressure - (A) 1702 P.S.I.

Initial Flow Period - Minutes (B) -- P.S.I. to (C) -- P.S.I.

Initial Closed In Period - Minutes (D) -- P.S.I.

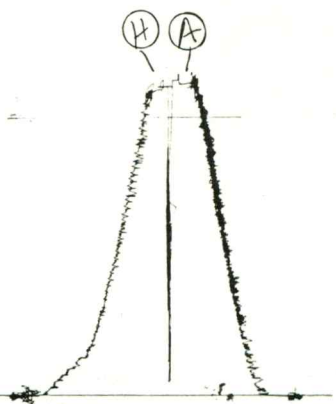
Final Flow Period - Minutes (E) -- P.S.I. to (F) -- P.S.I.

Final Closed In Period - Minutes (G) -- P.S.I.

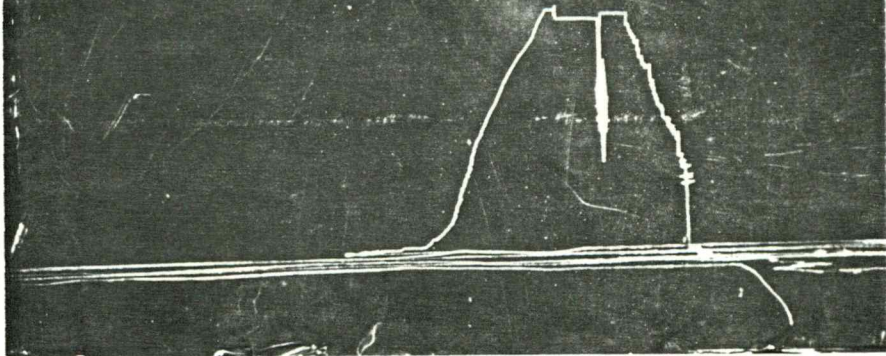
Final Hydrostatic Pressure - (H) 1646 P.S.I.

538
25T #3

TK+ # 2215
I.



TK1 # 2215
Below straddle



Company Watson Petroleum, Inc. Lease & Well No. Heuszel #2
Elevation -- Formation Mississippi Effective Pay -- Ft. Ticket No. 2216
Date 5/5/79 Sec. 17 Twp. 35S Range 1E County Sumner State Kansas
Test Approved by L. A. Watson Western Representative W. K. Hager

Formation Test No. 4 Interval Tested from 3242' ft. to 3259' ft. Total Depth 3577' ft.

Packer Depth 3237 ft. Size 6 3/4 in. Packer Depth 3259 ft. Size 6 3/4 in.

Packer Depth 3242 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3248 ft. Recorder Number 1558 Cap. 4200

Bottom Recorder Depth (Outside) 3251 ft. Recorder Number WTC Cap. -

Below Straddle Recorder Depth 3570 ft. Recorder Number 1559 Cap. 4200

Drilling Contractor DNB #3 Drill Collar Length - I. D. - in.

Mud Type chemical Viscosity - Weight Pipe Length - I. D. - in.

Weight -- Water Loss -- cc. Drill Pipe Length - I. D. 2 1/4 in.

Chlorides - P.P.M. Test Tool Length 40' in. Tool Size 5 1/2 in.

Jars: Make - Serial Number - Anchor Length 17' ft. Size 5 1/2 in.

Did Well Flow? - Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: See remarks.

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: PACKER SEAT FAILURE

Time Set Packer(s) A.M. P.M. Time Started Off Bottom A.M. P.M. Maximum Temperature

Initial Hydrostatic Pressure (A) 1705 P.S.I.

Initial Flow Period Minutes (B) -- P.S.I. to (C) -- P.S.I.

Initial Closed In Period Minutes (D) -- P.S.I.

Final Flow Period Minutes (E) -- P.S.I. to (F) -- P.S.I.

Final Closed In Period Minutes (G) -- P.S.I.

Final Hydrostatic Pressure (H) 1677 P.S.I.

51-111

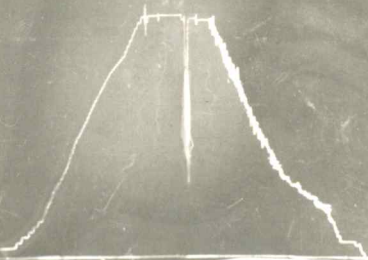
TK-#2216

I.



TKt#2216

Below Straddle



Company Watson Petroleum, Inc. Lease & Well No. Heuszel #2
 Elevation -- Formation Mississippi Effective Pay -- Ft. Ticket No. 2217
 Date 5/5/79 Sec. 17 Twp. 35S Range 1E County Sumner State Kansas
 Test Approved by L. A. Watson Western Representative W. K. Hager
 Formation Test No. 5 Interval Tested from 3217 ft. to 3259 ft. Total Depth 3577 ft.
 Packer Depth 3212 ft. Size 6 3/4 in. Packer Depth 3259 ft. Size 6 3/4 in.
 Packer Depth 3217 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set --
 Top Recorder Depth (Inside) 3237 ft. Recorder Number 1558 Cap. 4200
 Bottom Recorder Depth (Outside) 3240 ft. Recorder Number WTC Cap. -
 Below Straddle Recorder Depth 3570 ft. Recorder Number 1559 Cap. 4200
 Drilling Contractor DNB #3 Drill Collar Length - I. D. - in.
 Mud Type chemical Viscosity 40 Weight Pipe Length 600' I. D. 2 1/4 in.
 Weight 9.4 Water Loss - cc. Drill Pipe Length 2912' I. D. 3.8 in.
 Chlorides -- P.P.M. Test Tool Length 65' in. Tool Size 5 1/2 in.
 Jars: Make - Serial Number - Anchor Length 42' ft. Size 5 1/2 in.
 Did Well Flow? Gas Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Strong blow. Gas to surface in 25 minutes on initial flow period. See attached sheet for gas measurements.

Recovered 270 ft. of gas cut mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 7:20 ~~A.M.~~ P.M. Time Started Off Bottom 9:50 ~~A.M.~~ P.M. Maximum Temperature 114
 Initial Hydrostatic Pressure 1709 P.S.I.
 Initial Flow Period 60 Minutes (B) 118 P.S.I. to (C) 86 P.S.I.
 Initial Closed In Period 30 Minutes (D) 266 P.S.I.
 Final Flow Period 30 Minutes (E) 124 P.S.I. to (F) 88 P.S.I.
 Final Closed In Period 30 Minutes (G) 264 P.S.I.
 Final Hydrostatic Pressure 1677 P.S.I. (H)

Phone 316 262-5861

316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201**GAS FLOW REPORT**

Date 5/5/79 Ticket 2217 Company Watson Petroleum, Inc.
 Well Name and No. Heuszel #2 Dst No. 5 Interval Tested 3217'-3259'
 County Sumner State Kansas Sec. 17 Twp. 35S Rg. 1E

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
Gas to surface in 25 minutes. PRE FLOW						
	30 min.	1" orifice	28" of water			137,000 CFPD
	40 min.	1" orifice	32" of water			146,000 CFPD
	50 min.	1" orifice	36" of water			155,000 CFPD
	60 min.	1" orifice	38" of water			159,000 CFPD

SECOND FLOW						
	5 min.	1" orifice	42" of water			167,000 CFPD
	10 min.	1" orifice	42" of water			167,000 CFPD
	15 min.	1" orifice	44" of water			171,000 CFPD
	20 min.	1" orifice	44" of water			171,000 CFPD
	25 min.	1" orifice	44" of water			171,000 CFPD
	30 min.	1" orifice	44" of water			171,000 CFPD

GAS BOTTLE

Serial No. --- Date Bottle Filled 5/5/79 Date to be Invoiced 5/5/79

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1% per month, equal to 12% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME Watson Petroleum, Inc.

Authorized by L. A. Watson

WESTERN TESTING CO., INC.

Pressure Data

Date 5/5/79 Test Ticket No. 2217
 Recorder No. 1558 Capacity 4200 Location 3237 Ft.
 Clock No. -- Elevation --- Well Temperature 114 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1709	P.S.I.	7:20P	M
B First Initial Flow Pressure	118	P.S.I.	60	Mins. 60 Mins.
C First Final Flow Pressure	86	P.S.I.	30	Mins. 30 Mins.
D Initial Closed-in Pressure	266	P.S.I.	30	Mins. 30 Mins.
E Second Initial Flow Pressure	124	P.S.I.	30	Mins. 30 Mins.
F Second Final Flow Pressure	88	P.S.I.		
G Final Closed-in Pressure	264	P.S.I.		
H Final Hydrostatic Mud	1677	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 12 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Initial Shut-In
 Breakdown: 10 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

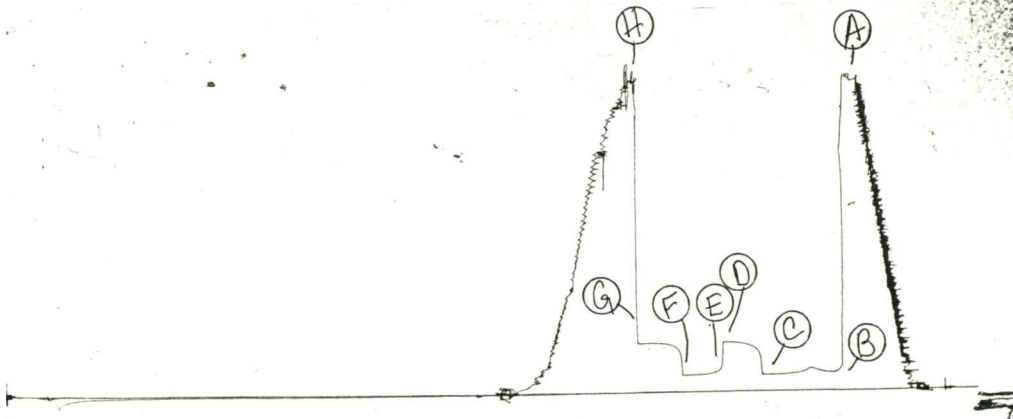
Second Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 10 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	118	0	86	0	124	0	88
P 2 5	97	3	209	5	101	3	221
P 3 10	97	6	234	10	95	6	243
P 4 15	105	9	247	15	91	9	255
P 5 20	114	12	257	20	91	12	262
P 6 25	110	15	262	25	90	15	264
P 7 30	97	18	264	30	88	18	264
P 8 35	91	21	266			21	264
P 9 40	89	24	266			24	264
P10 45	86	27	266			27	264
P11 50	86	30	266			30	264
P12 55	86						
P13 60	86						
P14							
P15							
P16							
P17							
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P19							
P20							

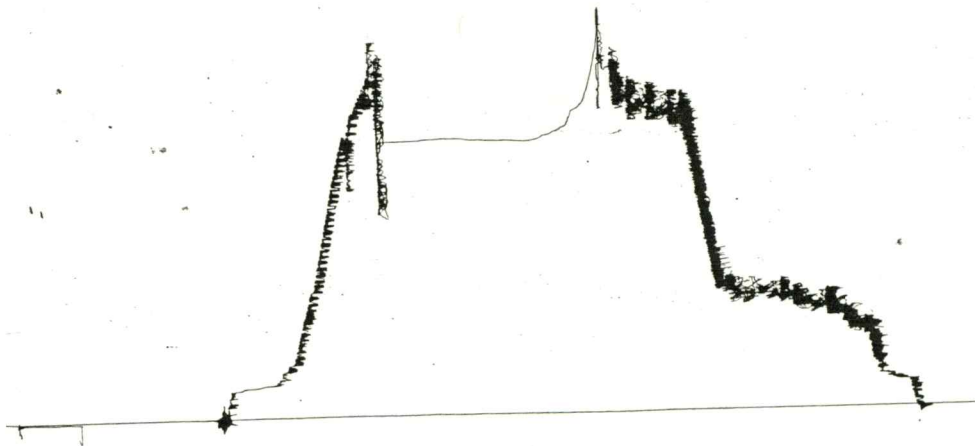
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b

TK#2217
I.



ST #5

TKT# 2217
Below Straddle



50